

Exhibit 1

**UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF NORTH CAROLINA**

UNITED STATES OF AMERICA,

Plaintiff,

v.

CITY OF DURHAM, NORTH
CAROLINA,

Defendant.

Case No. 1:24-cv-838

DECLARATION OF CHARLES A. SCHERBAUM, PH.D.

I, Charles M. Scherbaum, declare as follows:

1. I am a tenured Full Professor of Industrial and Organizational Psychology at Baruch College, City University of New York, and serve as the Director of the Ph.D. Program in Industrial and Organizational Psychology. I teach graduate and undergraduate courses on statistics, psychometrics, research methods, employee selection, and performance management. I received my Ph.D. in Industrial and Organizational Psychology from Ohio University in 2003. I have published peer-reviewed articles on statistical methods, employee selection procedures, job analysis, and test validation in the following academic journals: *Personnel Psychology*, *Organizational Research Methods*, *Educational and Psychological Measurement*, *Human Resource Management Review*, *Industrial and Organizational Psychology*, and *Personnel Assessment and Decisions*. I also serve on the editorial boards of *The Journal of Applied Psychology*, *Organizational Research Methods*, *International Journal of Selection and Assessment*, and *Journal of*

Business and Psychology. With Dr. Kristen M. Shockley, I am the author of *Methods for Analysing Quantitative Data for Business and Management Students* (Sage, 2015). I have been retained by numerous private organizations and governmental entities to consult with them on employment practices and selection devices, including, but not limited to, the U.S. Department of Justice (DOJ), the Equal Employment Opportunity Commission, and the National Football League. A copy of my curriculum vitae is attached. I have been retained by the United States in the above-captioned lawsuit at the rate of \$350 per hour.

2. In May 2021, I was retained by DOJ to provide my expert opinion during the investigative stage of this case as it relates to two uses of a written examination for entry-level firefighters used by the Durham Fire Department (DFD), the Comprehensive Examination Battery (CEB), in its hiring selection process. Specifically, and as explained in further detail below, I have been asked to provide my expert opinion as to whether: (1) DFD's use of the CEB as a pass/fail selection device to allow applicants to advance to the next step in DFD's multi-step hiring process causes a statistically significant adverse impact on African-American applicants; and (2) DFD's use of the CEB as a device to rank passing applicants to determine who will be interviewed causes a statistically significant adverse impact on African-American applicants. I was also asked to measure the practical effect of both of DFD's uses of the CEB in terms of the shortfall in African-American hires caused by these two uses of the test (hiring shortfall).

I. DFD's Hiring Process and Entry-Level Written Examination

3. Based on the data and information provided to me,¹ it is my understanding that, since 2015, to advance through DFD's entry-level hiring process, applicants must successfully complete the following steps: a physical agility test, the written test, an interview, a background check, a reference check, a medical examination, and a drug screening.

4. The written test that DFD has administered to entry-level firefighter applicants since October 2015 is the Comprehensive Examination Battery (CEB). The CEB was developed by Fire and Police Selection, Inc. (FPSI). The CEB is a 100-item multiple-choice test that purports to measure five constructs: reading (15 questions), math (20 questions), writing (20 questions), map reading (15 questions), and interpersonal competency/human relations (30 questions).

5. From 2015 to 2017, the written test that DFD administered consisted of the five-section CEB as well as an additional short section at the end of the test, called "Reasoning Skills" or the Practical Skills Test (PST), also developed by FPSI. The PST section of the test was comprised of 28 multiple choice questions that purport to measure reasoning skills. Since 2019, the written test has not included the PST, and scores are determined entirely by the CEB. Regardless of whether the test has included the PST,

¹ The analyses and findings discussed in this Declaration are based on the information and data that was provided to me in the course of the United States' investigation and since. If the case proceeds through discovery and I author an expert report, that report will describe the bases for the opinions contained therein, which may differ from or expand on those here depending on the evidence and data produced in discovery.

applicants receive a single, percentage-based score and are not required to achieve a minimum score in any of the individual sections to pass.

6. Since DFD began using the CEB in 2015 and continuing to the present, it has used the test as a selection device in two relevant ways in its entry-level hiring process. First, DFD has required all applicants to obtain a score of 70% or higher on the written test in order to pass and be eligible for an interview and has disqualified all applicants with a lower score. Second, DFD has ranked applicants eligible for an interview in the order of their numerical scores on the written test, and in years where there were fewer interview slots available than there were applicants eligible to interview, DFD interviewed applicants in rank order. Applicants whose written test score resulted in a rank that was not reached before all interview slots were filled were disqualified.

II. Principal Findings

7. My analysis of DFD's test administration data from 2015 to the present indicates that both of DFD's uses of the written test—as a pass/fail selection device eliminating applicants who score lower than 70%, and as a ranking device eliminating applicants who score higher than 70% but not highly enough to be interviewed—have a statistically and practically significant impact on African-American applicants.

8. From 2015 to the present, African-American applicants scored substantially lower on the written test than White applicants. In the aggregate, White applicants' scores were ten percentage points (out of 100) higher. Consequently, White applicants were approximately 5.03 times more likely than African-American applicants to pass the written test (the pass/fail use) and approximately 5.92 times more likely to receive an

interview (the ranking use).

9. As indicated in Table 1 below, from 2015 to the present, approximately 37 percent of the 255 African-American applicants who took the written test failed, whereas approximately 11 percent of the 712 White applicants who took the written test failed.

10. And from 2015 to present, approximately 33 percent of the 150 African-American applicants who were eligible for an interview failed to receive an invitation to interview as a result of their score on the written test, whereas approximately 14 percent of the 608 White applicants who were eligible for an interview failed to receive an invitation as a result of their score on the written test.

11. These disparities between the percentages of African-American applicants and White applicants who passed the written test and, of those who passed, were invited to interview, are statistically significant, at 9.33 and 6.48 units of standard deviation respectively.

Table 1: Adverse Impact of DFD's Uses of the Written Test

<i>Year</i>	<i>Race</i>	<i>Pass/Fail Use</i>		<i>Ranking Use</i>	
		<i>Percent Passed</i>	<i>Significance of Disparity (SDs)</i>	<i>Percent Invited</i>	<i>Significance of Disparity (SDs)</i>
All	African American	63.1%	9.334	67.3%	6.484
	White	89.7%		86.0%	
2015	African American	77.80%	1.941 ²	14.30%	2.827
	White	91.60%		48.30%	
2016	African American	61.90%	3.389	100.00%	- ³
	White	92.00%		100.00%	
2017	African American	51.60%	4.455	40.00%	2.356
	White	89.00%		71.40%	
2019	African American	55.60%	4.321	42.10%	3.579
	White	88.10%		81.00%	
2020	African American	73.33%	2.323	100.00%	-
	White	90.79%		100.00%	
2021	African American	75.68%	1.322	40.70%	3.749
	White	85.19%		78.80%	
2022	African American	73.91%	1.237	100.00%	-
	White	85.14%		100.00%	
2023	African American	53.70%	4.718	100.00%	-
	White	87.88%		100.00%	
2024	African American	64.86%	2.825	100.00%	-
	White	87.67%		100.00%	

12. The disparities arising from DFD's two uses of the written test resulted in a hiring shortfall of African-American applicants—that is, if African-American applicants had passed the written test at the same rate as White applicants, and had been invited to

² As is described further below, a disparity is statistically significant if it exceeds 1.96 units of standard deviation. Statistically significant disparities are indicated in bold.

³ In some years, DFD had enough interview slots available to invite all eligible applicants to interview, and the ranking use of the written exam therefore had no effect.

interview at the same rate as White applicants, then additional African-American applicants would have been hired by DFD.

13. Specifically, in or around December 2023, shortly before I understand the United States invited Durham to participate in settlement negotiations, I estimated that the hiring shortfall that resulted from DFD's uses of its written test was 18 additional African-American applicants. However, this assessment did not include the hiring shortfall that resulted from the 2023 and 2024 hiring cycles, because data concerning those cycles had not yet been provided to me at that time. The total hiring shortfall including the full range of years in which the written test was in use is therefore greater than 18.

III. Methodology

A. Statistical Significance

14. An employer's use of a selection device is considered to have an adverse impact on a protected class if members of the protected class have a statistically significantly lower likelihood than other test takers of succeeding on the selection device.

15. As noted above, DFD's administration of the written test resulted in two discrete uses of that test: to exclude applicants who failed by scoring below 70% (the pass/fail use) and to exclude applicants who scored above 70% but scored too low compared to other passing applicants to be interviewed (the ranking use). Each of these uses of the test can be independently analyzed for adverse impact.

16. If there is a statistically significant difference between the African-American and White success rates on either use of the test, one can conclude that the

disparity is associated with race rather than chance.⁴ By ruling out chance, one can reasonably expect to observe a similar disparity between African-American and White firefighter applicants' performance on any other administrations of this test.

17. Statisticians, testing experts, and other social scientists normally consider a disparity to be statistically significant if the probability of the disparity occurring by chance is 5 percent or less.⁵ The 5 percent probability level is equivalent to a difference of approximately two (1.96) units of standard deviation. For purposes of this declaration, I refer to a disparity of at least 1.96 units of standard deviation as being “statistically significant.” The larger the number of standard deviations, the lower the probability that the disparity occurred by chance.

18. To determine whether DFD's first use of the written test—the pass/fail use—had an adverse impact on African-American applicants, I compared the percentage of African-American test takers who passed the test (the African-American pass rate) with the percentage of White test takers who passed (the White pass rate). I used the pass rate for White firefighter applicants as the benchmark because the *Uniform Guidelines on Employee Selection Procedures* (Equal Employment Opportunity Commission, Civil Service Commission, Department of Labor, and Department of Justice, 1978) instruct

⁴ Dunleavy, E., Morris, S., & Howard, E. (2015). Measuring adverse impact in employee selection decisions. In C. Hanvey & K. Sady (Eds.) *Practitioner's guide to legal issues in organizations* (pp. 1-26). Springer.

Morris, S. (2017). Statistical significance testing in adverse impact analysis. In S. Morris & E. Dunleavy (Eds.) *Adverse impact analysis: Understanding data, statistics, and risk* (pp. 91-111). Routledge.

⁵ Morris, S. (2017).

that the success rate of the class of interest should be compared to that of the best performing or majority group (here, White test takers).

19. Relying on the same principles in the *Uniform Guidelines on Employee Selection Procedures* to determine whether DFD's second use of the written test—the ranking use—had an adverse impact on African-American applicants, I compared the percentage of African-American applicants eligible for an interview who were, as a result of their written test score, invited to interview (the African-American invitation rate) to the percentage of White applicants eligible for an interview who were, as a result of their written test score, invited to interview (the White invitation rate).

20. To conduct the comparisons described in Paragraphs 18 and 19 above, I performed several analyses that are commonly used to examine differences in selection rates among known pools.⁶ Specifically, I used the two standard deviation test of the difference in proportions (i.e., Pooled Two-Sample Z-Score test) and the Fisher's exact test to examine the impact of DFD's uses of its written test on African-American test takers. These are the two most commonly used statistical significance tests for examining adverse impact.

21. The two standard deviation test (2SD) of the difference in proportions (i.e., Pooled Two-Sample Z-Score test) is a statistical test of the difference in proportions between two groups. In this case, the proportions compared are the proportion of the eligible African-American applicants who succeeded on the use of the test (by passing or

⁶ Biddle, D. (2011). *Adverse Impact and Test Validation: A Practitioner's Handbook*. Infinity Publishing.

being invited to interview) and the proportion of White applicants who did. This test is a form of a Z-test.

22. The Fisher's exact test is a chi-square test based on a 2×2 contingency table. One of the factors in the table is group membership (e.g., White or African-American), and the other factor is the outcome (e.g., passing or failing, or being invited or not invited). Like the 2SD test, Fisher's exact test compares differences in the outcomes between the groups.

B. Analysis of Data Across Time

23. When analyzing test data over multiple administrations, it is important to account for the fact that some applicants take the test multiple times. In the impact analyses I performed here, I took an "ever-pass" approach to repeat test takers. Under this approach, I identified all applicants who took the written test multiple times. I counted each such applicant only once, and I counted them as a passer if they ever passed the test, or as an interview-invitee if they had ever been invited.

24. This approach to repeat test takers is conservative in the employer's favor in that failures are counted as infrequently as possible. In other words, if the adverse impact analyses described above show statistically significant disparities under the ever-pass approach that was applied here, then application of any other approach to repeat test takers would show even greater statistical significance and more impact.

25. When the same selection device is used multiple times to screen different groups of applicants, it is a common and proper statistical practice to study the data over

all the administrations of the selection device.⁷ Doing so increases the sample size and maximizes the accuracy of the analysis. Sample size is an important determinant of statistical significance. When sample sizes are small, meaningful differences in passing rates will not meet the criteria for statistical significance and create a misleading picture about the pattern of adverse impact across multiple years from the use of the same selection device. Aggregating applicant data across all hiring cycles in this way provides a clearer picture of a selection device's adverse impact by, among other things, reducing sampling errors that may arise from smaller variations in the data that are observable from year to year.

26. Several statistical strategies exist to ensure that aggregating the results from multiple administrations of the same selection device is appropriate. I employed several such strategies, as described further below, and concluded that aggregating the data for DFD's administrations of the written exam from 2015 to the present is statistically appropriate. Therefore, when analyzing DFD's two uses of the written test, I analyzed the test's adverse impact in the aggregate to present the clearest picture possible.

27. Table 1 above presents the results of this aggregated analysis. In my professional opinion, the row corresponding to the aggregated analysis (labelled "all" years) is the most probative of the adverse impact of DFD's uses of its tests.

⁷ Technical Advisory Committee Report on Best Practices in Adverse Impact Analyses. Technical Advisory Committee Report on Best Practices in Adverse Impact Analyses (Download from: TAC-Report-on-Adverse-Impact-Analyses-1.pdf). Morris, S. B., Dunleavy, E. M., & Lee, M. (2016). Many 2×2 Tables: Understanding Multiple Events in Adverse Impact Analyses. In S. Morris & E. Dunleavy (Eds.) *Adverse impact analysis: Understanding data, statistics, and risk* (pp. 167-188). Routledge.

28. Nevertheless, Table 1 also provides the results of the same analyses conducted year-by-year. As Table 1 illustrates, the results are statistically significant not only in the aggregate but for most of the individual years considered in isolation. For the pass-fail use of the test, there is statistically significant adverse impact in 6 out of 9 individual years (and adverse impact just shy of statistical significance—1.94 SDs rather than the required 1.96 or greater—in a 7th year, 2015). And for the ranking use of the test, there is statistically significant adverse impact in all of the 4 years when the practice had any effect at all.

29. The 2SD and Fisher's Exact analyses described above are appropriately used for single event selection contexts (e.g., a single hiring cycle). However, it is common and appropriate to combine single events for what are called multiple event selection context analyses. In such cases, slightly different adverse impact analyses, described below, are required.⁸ These analyses require that the pattern of passing rates was consistent across hiring cycles before combining them.

30. To examine the consistency in the passing rates across hiring cycles, I used the Breslow-Day test of the homogeneity of the odds ratios.⁹ This test is a commonly used statistical test to evaluate the consistency in the pattern of passing rates from different events.¹⁰ The Breslow-Day test can indicate whether there is a consistent pattern

⁸ Biddle, D. (2011).

⁹ Breslow, N., & Day, N. (1980). *Statistical methods in cancer research, volume I: The analysis of case-control studies* (Vol. 32). Lyon: France: IARC Scientific.

¹⁰ Biddle, D. (2011).

Morris, S. Dunleavy, E., & Lee, M. (2017).

in the direction and magnitude of advantage in the passing rates of one group over the other across the hiring cycles. If the results of this test are *not* statistically significant, it supports the conclusion that the passing rates on the exam are similar across the yearly hiring cycles, and it may be appropriate to combine them. If the results are statistically significant, it indicates that the pattern is different across the yearly hiring cycles, and it may not be appropriate to combine hiring cycles.

31. Here, the passing rates were similar across the yearly hiring cycles. In such circumstances, it is also appropriate to conduct the Mantel-Haenszel test to examine the adverse impact in the aggregated data. Thus, I did so here as well.

32. The Mantel-Haenszel is a chi-square test that can be used to determine if there is a contingency between two variables.¹¹ In this case, it would examine a contingency between passing/failing the written exam and group membership (i.e., is passing the written exam contingent on one's race?). The analysis examines these contingencies after stratifying by year. The stratification based on year allows the analysis to compare the passing rates for different groups within each yearly hiring cycle. The analysis combines the results for each yearly hiring cycle into an overall test statistic that weighs the results in each yearly hiring cycle by the number of applicants in the year.

33. As part of my evaluation of the appropriateness of aggregating the DFD data across time, I considered the fact that DFD's written test included an additional short section at the end of the test, called "Reasoning Skills" or the Practical Skills Test (PST)

¹¹ Mantel, N., & Haenszel, W. (1959). Statistical aspects of the analysis of data from retrospective studies of disease. *Journal of the National Cancer Institute*, 22(4), 719-748.

in 2015-17 but not later, as described in Paragraph 5 above.

34. My understanding is that Durham does not have any test score data other than the final overall percentage score that each applicant achieved on the written test. In other words, there does not appear to be any evidence available that would permit a *direct analysis* of whether it was the CEB portion of the 2015-17 test or the PST portion of that test (or both) that was causing the adverse impact the written test had in those years.

35. Nevertheless, in my professional opinion, the statistical analyses described above in Paragraphs 30-33 indicate that the CEB portion of the 2015-17 test is the overwhelming cause of the adverse impact that was observed in those years. In light of the consistency in the scores and the disparities between African-American and White applicants that is observed in the years without this additional section (from 2019-2024), it is reasonable to expect that the test administered in those years (the CEB) would have generated similar results in other years when the test was administered. That the test administered in the early years was comprised of mostly those very same questions (100 out of 128 being the same) and that it showed statistically comparable results leads me to conclude that it was those same questions, the CEB questions, that caused the substantial level of adverse impact in the test overall. Given that, I concluded that it was appropriate to aggregate these early years with the later years regardless of the inclusion of this additional section.

C. Practical Significance

36. A descriptive statistical method that can assist the trier of fact in assessing the practical significance of a disparity is evaluating the passing shortfall and the hiring

shortfall. The passing shortfall describes the number of applicants from the protected group who could have been expected to pass and succeed, rather than fail, on the selection device at issue if it had not had an adverse impact.¹² The hiring shortfall describes the number of such applicants who can be expected to have been hired if they had succeeded, rather than failed, on the selection device at issue. It is my understanding that the hiring shortfall is commonly used as a basis for damages calculations in cases such as this one.

37. The hiring shortfall is not an assessment of which *specific* African-American applicants would have been hired if the written test had not had an adverse impact on the basis of race—rather, it is an estimate of the *number* of such individuals, based on how applicants generally proceed through the remainder of the hiring process after succeeding on the selection device at issue.

38. Here, I used the professionally accepted methods described below to estimate the hiring shortfall of African-American applicants from both DFD’s pass/fail use and its ranking use of the written test.¹³

39. I first calculated the passing shortfall—the number of African-American applicants who would have advanced through the pass/fail and ranking-for-interview steps in the selection process if African-American applicants had passed those steps at the same rate as White applicants (the “passing shortfalls”). Then, to account for the fact that

¹² Oswald, F., Dunleavy, E., & Shaw, A. (2017). Measuring practical significance in adverse impact analysis. In S. Morris & E. Dunleavy (Eds.) *Adverse Impact Analysis: Understanding data, statistics, and risk* (pp. 112-132). Routledge.

¹³ Oswald, F., Dunleavy, E., & Shaw, A. (2017).

applicants who pass these steps sometimes withdraw, I adjusted the passing shortfalls by the rate at which applicants withdraw from the later steps in the hiring process (i.e., by multiplying the passing shortfall with the withdrawal rate). I then reduced these adjusted passing shortfalls by the hiring rate for a specific comparator group to estimate how many of them would have gone on to be hired—the hiring shortfall (i.e., by multiplying the adjusted passing shortfall with the comparator hiring rate).

40. To calculate the hiring shortfall from the pass/fail use of the written exam, the comparator hiring rate I used was the hiring rate of the White applicants who pass the test. Using an overall hiring rate (the rate among *all* test passers) rather than the White rate as the comparator rate here would yield a misleading picture of how many of these applicants would have been hired in the absence of a test with impact, since a later use of that very same test (the ranking use) served to further disproportionately reduce the pool of African-Americans who went on to be hired. By contrast, to calculate the hiring shortfall from the *ranking* use of the written exam, the comparator rate I used was the overall hiring rate (the hiring rate among *all* test passers), given that no later steps in DFD’s hiring process had an adverse impact.

41. I took further steps in these analyses to ensure that no applicant is counted in the hiring shortfall from both uses of the test. In particular, I analyzed the hiring shortfalls under a “first-time test-taker” approach, which, like the “ever pass” approach described above, counted applicants who took the test more than once only once, but rather than examining each such applicants’ most favorable performance on the test (as in the “ever pass” approach), I examined each such applicant’s first performance on the test.

By applying this methodology, no applicant who failed the exam and thereby contributed to the hiring shortfall from the pass/fail use of the test was also then counted as contributing in a later cycle, during which he or she passed the test but failed to be interviewed, to the hiring shortfall from the ranking use of the test. As with the application of the “ever pass” approach used for the adverse impact analyses, this approach is conservative in Durham’s favor, meaning that the resulting estimate of the hiring shortfall is lower rather than higher.

IV. Additional Findings

42. At the United States’ request, I also examined the distributions of written tests scores that were achieved by applicants who took DFD’s written exam from 2015 to the present.

43. I concluded that very few applicants scored exceedingly poorly on the written exam. Rather, most applicants who failed the written exam scored not much less than the required 70%.

44. As indicated in Table 1 above, between 2015 and the present, 37% of African-American test takers failed DFD’s written exam. But the vast majority of those were not far from passing: Only 13% of African-American test takers (a total of approximately 33 applicants) scored below 60% on the test; only 9% (23 applicants) scored below 55%; and only 4% (11 applicants) scored below 50%.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on January 14, 2025



Charles A. Scherbaum

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Education

- August 2003 Ph.D. Psychology, Ohio University, Athens, Ohio
 Chair: Jeffrey B. Vancouver
 Dissertation Title: "Detecting intentional response distortion on measures of the five-factor model personality: The differential person functioning approach"
- August 2001 M.S. Psychology, Ohio University, Athens, Ohio
 Chair: Jeffrey B. Vancouver
 Thesis Title: "Testing a computational goal-discrepancy reducing model of goal discrepancy creation"
- December 1997 B.S. Psychology, University of Washington, Seattle, Washington

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27. Scherbaum, C.A., & Ferreter, J.M. (2009). Estimating statistical power and sample size requirement for organizational research using hierarchical linear models. *Organizational Research Methods*, 12, 347-367.
 - Article reprinted in Vogt's (Ed.) (2011) SAGE Quantitative Research Methods (vol. 4, pp. 127-150). This collection is designed to present a representative sample of the best quantitative methods articles that have appeared in SAGE journals.
28. Scherbaum, C.A., & Goldstein, H. (2008). Examining the relationship between differential item functioning and item difficulty. *Educational and Psychological Measurement*, 68, 537-553.
29. Scherbaum, C.A., Popovich, P.M., & Finlinson, S. (2008). Exploring factors related to energy conservation behaviors in organizations. *Journal of Applied Social Psychology*, 38, 818-835.
30. Vancouver, J.B., & Scherbaum, C.A. (2008). Do we self-regulate actions or perceptions? A test of two computational models. *Computational and Mathematical Organization Theory*, 14, 1-22.

31. Scherbaum C.A., Cohen-Charash, Y., & Kern, M. (2006). Measuring general self-efficacy: A comparison of three measures using item response theory. *Educational and Psychological Measurement*, 66, 1047-1063.
32. Scherbaum, C.A., Finlinson, S., Barden, K., & Tamanini, K. (2006). Applications of item response theory to measurement issues in leadership research. *Leadership Quarterly*, 17, 366-386.
33. Scherbaum, C. A. (2005). Synthetic validity: Past, present, and future. *Personnel Psychology*, 58, 481-515.
34. Scherbaum, C.A., Scherbaum, K.L., & Popovich, P.M. (2005). Predicting job-related expectancies and affective reactions to employees with disabilities from previous work experience. *Journal of Applied Social Psychology*, 35, 889-904.
35. Vancouver, J. B., Putka, D. J., & Scherbaum, C. A. (2005). Triangulating on the goal-level effect: Experimental, computational, and correlational analysis. *Organizational Research Methods*, 8, 100-127.
36. Popovich, P. M., Scherbaum, C. A., Scherbaum, K. L., & Polinko, N. (2003). The assessment of attitudes toward individuals with disabilities in the workplace. *Journal of Psychology*, 137, 163-177.
37. Vancouver, J. B., & Scherbaum, C. A. (2000). Automaticity, goals, and environment. *American Psychologist*, 55, 763-764.

Non-Peer Reviewed Publications (3)

1. Scherbaum, C. A. (2018). [Review of the Matrigma]. In J. F. Carlson, K. F. Geisinger, & J. L. Jonson (Eds.), *The twenty-fourth mental measurements yearbook* (pp. 413-414). Lincoln, NE: Buros Center for Testing.
2. Scherbaum, C. A. (2014). [Review of the Mechanic Evaluation Test—Forms A1R-C, B1-C, C1-C]. In J. F. Carlson, K. F. Geisinger, & J. L. Jonson (Eds.), *The nineteenth mental measurements yearbook* (pp. 413-414). Lincoln, NE: Buros Center for Testing.
3. Scherbaum, C. A. (2013). How 'Big' are SIOP's Data? *The Industrial and Organizational Psychologist*, 51, 28-31.

Book Chapters (21)

1. Larson, E. Goldstein, H., Thomas, A., Yusko, K., & Scherbaum, C. (in press). Talent Management in Elite Sports: Assessing, Selecting, and Developing Talent in the NFL Using an I-O Lens. In R. Jacobs & D. Reynolds' (Eds.) *Case Studies in I-O Psychology*. Oxford University Press.
2. Scherbaum, C.A. & Shockley, K.M. (2023). A basic guide to statistical discovery: Planning and selecting statistical analyses. In F. Leong & J. Austin (Eds.), *The psychology research handbook: A guide for graduate students and research assistants* (3rd ed.). Thousand Oaks, CA: Sage.

3. Scherbaum, C., Goldstein, H., Yusko, K., Larson, E., Kato, A., Patel, K. & Cheban, Y. (2023). Advances in cognitive ability assessment to mitigate group differences. Invited Chapter in T. Kantrowitz, J. Scott, & D. Reynolds (Eds.), *Talent Assessment: Embracing Innovation and Mitigating Risk in the Digital Age*. Oxford University Press.
4. Saari, L., & Scherbaum, C. (2020). Data Privacy and Ethical Considerations with Employee Surveys and Emerging Technologies (pp. 391-406). In B. Macey & A. Fink's (Eds.) *Employee Surveys and Sensing: Challenges and Opportunities*. American Psychological Association.
5. Chou, V. P., Omansky, R., Scherbaum, C. A., Yusko, K. P., & Goldstein, H. W. (2019). The use of specific cognitive abilities in the workplace (pp. 436-471). In D. McFarland (Ed.), *General and Specific Abilities*. Newcastle upon Tyne, UK: Cambridge Scholars Publishing.
6. Yusko, K., Aiken, J., Goldstein, H., Scherbaum, C. & Larson, E. (2018). Solving the "Quarterback Problem": Using Psychological Assessment to Improve Selection Decisions in Professional Sports. In R. Sims' (Ed.) *Human Resources Management Issues, Challenges and Trends: "Now and Around the Corner"*. Information Age Publishing.
7. Scherbaum, C.A., & Pesner, E. (2018). Power Analysis for Multilevel Research. In S. Humphrey & J. LeBreton's (Eds.) *The Handbook for Multilevel Theory, Measurement, and Analysis* (pp. 329–352). American Psychological Association.
8. Larson, E., Yusko, K., Goldstein, H., Scherbaum, C., Aiken, J., and Oliver, L. (2018). Modernizing Intelligence in the Workplace: Recent Developments in Theory and Measurement of Intelligence at Work. In V. Zeigler and T. Shackelford (Eds.), *The Sage Handbook of Personality and Individual Differences: Applications of Personality and Individual Differences* (pg. 568-587). Thousand Oaks, CA: Sage Publications.
9. Scherbaum, C., DeNunzio, M., Oliveira, J. & Ignagni, M. (2017). Race and Cultural Differences on Predictors Commonly Used in Employee Selection and Assessment. In B. Passmore, H. Goldstein, & E. Pulakos' (Eds.) *The Handbook of the Psychology of Recruitment, Selection, and Retention* (pg. 400-421). Wiley-Blackwell.
10. Agnello, P., & Scherbaum, C. (2015). *Re-exploring the gender gap in mathematics: A within-person approach*. *Advances in Psychology Research* (vol 108, pp. 1-22). New York: Nova Publishers.
11. Scherbaum, C. Goldstein, H., Ryan, R., Agnello, P., Yusko, K., & Hanges, P. (2015). New Developments in Intelligence Theory and Assessment: Implications for Personnel Selection. In J. Oostrom & I. Nikolaou's (Eds.) *Employee Recruitment, Selection, and Assessment. Contemporary Issues for Theory and Practice*. London: Psychology Press-Taylor & Francis.
12. Scherbaum, C.A. & Saunderson, R. (2014). Using Big Data and Analytics to Create, Maintain, and Build Enterprise Engagement. *Enterprise Engagement Handbook* (pp. 215-223). New York: Enterprise Engagement Alliance.

13. Sabet, J., Scherbaum, C., & Goldstein, H. (2013). Examining the potential of neuropsychological intelligence tests for predicting academic performance and reducing racial/ethnic test scores differences. In F. Metzger's (Ed.) *Neuropsychology: New Research* (pp. 1-24). New York: Nova Publishers.
14. Breaux, P. & Scherbaum, C. (2013). Heroic-leadership teams: A militarily related team LMX Study. In G. Graen and J. Graen's (Ed.) *Management of team leadership in extreme contexts: Defending our homeland, protecting our first responders* (pp.1-9). Charlotte, NC: Information Age Publishing Inc.
15. Scherbaum, C.A., Putka, D.J., Naidoo, L.J., & Youssefnia, D. (2010). Key driver analyses: Current trends, problems, and alternative approaches. In S. Albrecht's (Ed.), *Handbook of employee engagement* (182-196). Edward-Elgar Publishing House: Camberley, UK.
16. Goldstein, H. W., Scherbaum, C. A., & Yusko, K. (2009). Adverse impact and measuring cognitive ability. In J. Outtz's (Ed.) *Adverse impact: Implications for organizational staffing and high stakes testing* (pp. 95-134). New York: Psychology Press.
17. Scherbaum, C. A., & Meade, A. W. (2009). Measurement in the organizational sciences. In D. Buchanan & A. Bryman (Eds.), *Handbook of organizational research methods* (pp. 636-653). London: Sage.
18. Naidoo, L.J., Scherbaum, C.A., & Goldstein, H.W. (2008). Examining the relative importance of leader-member exchange on group performance over time. In G. B. Graen and J. A. Graen (Eds.), *Knowledge Driven Corporation: A Discontinuous Model. LMX Leadership: The Series* (Vol 5, pp. 211-230). Charlotte, NC: Information Age Publishing Inc.
19. Scherbaum, C.A., Naidoo, L.J., & Ferreter, J.M. (2007). Examining component measures of team leader-member exchange (LMX-SLX) using item response theory. In G. Graen and J. Graen (Eds.), *New Multinational Network Sharing* (129-156). Charlotte, NC: Information Age Publishing.
20. Scherbaum, C.A. (2005). A basic guide to statistical discovery: Planning and selecting statistical analyses. In F. Leong & J. Austin (Eds.), *The psychology research handbook: A guide for graduate students and research assistants* (2nd ed., pp. 275-292). Thousand Oaks, CA: Sage.
21. Austin, J. T., Scherbaum, C. A., & Mahlman, R. A. (2002). History of research methods in industrial and organizational psychology: Measurement, design, analysis. In S. Rogelberg (Ed.), *Handbook of research methods in industrial and organizational psychology* (pp. 3-33). Oxford: Blackwell Publishers.

Peer Reviewed Presentations (135)

1. Goldstein, B. & Scherbaum, C. (2025) *Work-Related and Non-Work-Related Interests as Antecedents to Informal Mentorships* [Poster]. Society for Industrial and Organizational Psychology Annual Conference, Denver, CO, United States.

2. Goldstein, B., Malloy, C., Bending, A., Shultz, E. P., Young, M., Larson, E., & Scherbaum, C. (2025, April 4). *A quantitative review of the physical ability test validity* [Poster presentation]. Society for Industrial-Organizational Psychology Annual Conference, Denver, CO, United States.
3. Lee, P. J., & Scherbaum, C. (2024, July). *How cultural cues affect bicultural individuals' personality assessment response patterns: A frame switching perspective*. Oral presentation to be conducted at the annual conference of the International Testing Commission Conference, Granada, Spain.
4. Bending, A., Malloy, C., Cheban-Gore, Y., Xue, Y., Scherbaum, C., Goldstein, H., Larson, E., Yusko, K. (2024, April). *National survey of entry-level state police officer hiring practices*. In D. Chatterjee, R. Jacobs & B. Alge's *Attracting, hiring, and retaining talent in law enforcement*. [Symposium]. Society for Industrial and Organizational Psychology Annual Conference, Chicago, IL.
5. Larson, E., Kato, A. E., Goldstein, B., & Scherbaum, C. (2024, April). *A meta-analysis of information processing measures, performance, and group score differences*. In A. Kato & H. Kell's (Re)Modeling intelligence and its assessment for the modern workplace [Symposium]. Society for Industrial and Organizational Psychology Annual Conference, Chicago, IL.
6. Martin, J. (Co-Chair), Sabet, J. (Co-Chair), Barden, K., Larson, E., Scherbaum, C., Schrage, M. (2024, April). *A Practitioner's Discussion on Assessment Center Best Practices and Emerging Trends*. Society for Industrial and Organizational Psychology Annual Conference, Chicago, IL.
7. Shultz, P., Wong, A. & Scherbaum, C. (2024, April). *The Impact of Auditory Interruptions on Virtual Interviews*. Poster presented at the Society for Industrial and Organizational Psychology Annual Conference, Chicago, IL.
8. Cheban, Y., & Scherbaum, C. (2023, April). *Psychological Reactions of Applicants to Technology-Mediated Interviews*. Poster to be presented at Society for Industrial and Organizational Psychology Annual Conference, Boston, MA.
9. Cheban Y., Malloy, C., Bending, A., & Scherbaum C. (2023, April). *National survey of entry-level police officer hiring practices*. In W. Luse's *Considerations for fair and valid talent assessment in policing*. Symposium at the Society for Industrial and Organizational Psychology Annual Conference, Boston, MA.
10. Kato, A., Scherbaum, C. & Bank, J. (2023, April). *Does Mobile Matter? Examining Device Type and Method Factor Effects on SJT Outcomes*. Poster to be presented at Society for Industrial and Organizational Psychology Annual Conference, Boston, MA, United States.
11. Naidoo, L., Scherbaum, C., & Saunderson, R. (2023, April). *Employee recognition giving in a crisis: A study of healthcare workers during COVID-19*. Poster to be presented at Society for Industrial and Organizational Psychology Annual Conference, Boston, MA, United States.

12. Cheban, Y., Ray, E., & Scherbaum, C. (2022, July). *The Promises and Perils of Asynchronous Video Interviews*. Panel discussion at the annual conference of the International Personnel Assessment Council. San Diego, CA.
13. Hashimoto, M., McDonnell, A., Sugrim, G., & Scherbaum, C. (2022, August). *Evaluating disabled candidate characteristics in recorded job interviews*. Poster Presented at the Annual Meeting of the American Psychological Association. Minneapolis, Minnesota.
14. Scherbaum, C. (2022, April). Panelist. *Rethinking What Employees Really Want in the COVID Era*. Panel Discussion at the 37th Annual Conference of the Society of Industrial Organizational Psychology. Seattle, Washington.
15. Yu, S. & Scherbaum, C. (2022, April). *Impact of Warnings on Gamified Personality Assessments*. Poster presented at the 37th Annual Conference of the Society of Industrial Organizational Psychology. Seattle, Washington.
16. Cheban, Y., Kayga, L., Scherbaum, C., & Hanges, P. (2021, April). *Opportunities in I-O research utilizing eye-tracking methodology*. The 36th Annual Conference of the Society of Industrial Organizational Psychology. New Orleans, Louisiana.
17. Cheban, Y., Ray, E., & Scherbaum, C. (2021, April). *Video Interviewing: A Best Practices Discussion*. Panel discussion at the 36th Annual Meeting of the Society of Industrial and Organizational Psychology, New Orleans, LA.
18. Patel, K. & Scherbaum, C. (2021, April). *Tweet Tweet Read All About It: The Impact of Social Media on Performance Appraisals*. Poster presented at the 36th Annual Conference of Society for Industrial and Organizational Psychology, New Orleans, LA.
19. Pineault, L., Alenick, P., Dickson, M., Scherbaum, C., Alber, M., Crenshaw, J., & Bellenger, B. (2021, April). *Race-based differences in the police candidate anxiety-interview performance relationship*. In S. Howe's Investigating Discriminatory Behaviors in Employment Interviews. Symposium at the 36th annual conference of the Society for Industrial/Organizational Psychology, New Orleans, LA.
20. Scherbaum, C. (2021, April). Panelist in H. Kell's *Non-G-Ocentric models of cognitive abilities and their relevance to I-O psychology*. Alternative session at the 36th annual conference of the Society for Industrial/Organizational Psychology, New Orleans, LA. <https://vimeo.com/538098159>
21. Yusko, K., Scherbaum, C., & Goldstein, B. (2021, April). *Using Psychological Assessments to Predict Player Performance in the NFL*. In E. Heggstad's (Chair) Talent Management in Elite Sports: Using an I/O Lens. Symposium conducted at the 36th Annual Conference of the Society for Industrial and Organizational Psychology, New Orleans, LA.
22. Kuzmich, I., & Scherbaum, C. (2020, April). *Re-examining the effect of mid-test warnings on faking on personality inventories*. Poster presented at the 35th Annual Conference of the Society for Industrial and Organizational Psychology, Austin, TX.

23. Natale, A., Patel, K., Scherbaum, C. A., Tumminia, A. (2020, April). *To Check or Not to Check?: Attention Checks and MTurker Attitudes & Behavior*. Poster presented at the 35th Annual Conference of the Society for Industrial and Organizational Psychology, Austin, TX.
24. Oliveira, J., Rutigliano, P., Scherbaum, C., & Saari, L. (2020, April). *Examining the Impact of Survey Identification on Response Behavior*. Poster presented at the 35th Annual Conference of the Society for Industrial and Organizational Psychology, Austin, TX.
25. Scherbaum, C. A. (2020, April). Panelist. In P. Agnello's *Synthetic Validity: An Authentic Solution to Applied Problems* [Session Cancelled Due to COVID-19]. Panel Discussion conducted at the 35th Annual Conference of the Society for Industrial and Organizational Psychology, Austin, TX.
26. Yu, S., Corpuz, C., Kui, V., & Scherbaum, C. (2020, August). *Lights, Cameras, Faking: Comparing Warning Deterrents to Prevent Faking*. Poster presented at the annual meeting of the American Psychological Association, Washington, D.C.
27. Chou, V. P. & Scherbaum, C. A. (2019, April). *Using Cognitive Pupillometry to Study Cognitive Processes and Abilities*. In C. A. Scherbaum & P. J. Hanges (Chairs), In the Mind's Eye: Eye Tracking as a Tool for the Organizational Sciences. Symposium conducted at the 34th Annual Conference of the Society for Industrial and Organizational Psychology, Washington, D.C.
28. Chou, V. P., Scherbaum, C. A., & Hanges, P. J. (2019, April). A Neuroscience Method to Elucidate Sources of Score Differences on Ability Tests. Poster session presented at the 34th Annual Conference of the Society for Industrial and Organizational Psychology, Washington, D.C.
29. Kato, A. E., & Scherbaum, C. A. (2019, April). *Exploring the relationship between cognitive ability tilt and job performance*. In H. J. Kell & S. Wee (Co-Chairs), Very much more than g: Further evidence for the importance of specific abilities. Symposium conducted at the 34th annual conference of the Society for Industrial and Organizational Psychology, National Harbor.
30. Kuzmich, I., & Scherbaum, C. (2019, April). *Using social-categorization theory and methods to study faking behavior*. Presented at the 34th annual conference of the Society for Industrial and Organizational Psychology, National Harbor, MD.
31. Larson, E., Chou, V., Lee, P., Scherbaum, C., Freed, S., Pineault, L., Keval, N., Dickson, M., Aiken, J., & Goldstein, H. (2019, April). *Generalizability theory estimates of interview reliability*. Poster presented at the 34th annual conference of the Society for Industrial and Organizational Psychology, National Harbor, MD.
32. Lee, P. & Scherbaum, C. (2019, May). *Profiles of Individual Performance Distributions and Their Relationship with Interdependent Team Performance*. Poster presented at the European Association of Work and Organizational Psychology annual congress, Turin, Italy.

33. Scherbaum, C. A., & Hanges, P.J. (Chairs) (2019, April). *In the mind's eye: Eye tracking as a tool for the organizational sciences*. Symposium conducted at the Society for Industrial and Organizational Psychology Convention, Washington, DC/National Harbor, MD.
34. Agnello, P., Scherbaum, C., Goldstein, H., & Yusko, K. (2018, April). *Reasoning with Pseudowords in a Cognitive Ability Context*. In J. Cottrell's What's New in Adverse Impact? Exploring Theory, Techniques, Test Types, and Tools. Session at the 33rd annual conference of the Society for Industrial and Organizational Psychology, Chicago.
35. Guzzo, R., Yusko, K., Goldstein, H., Scherbaum, C., Larson, E., Ryan, R., and Nalbantian, H. (2018, April). *Using Assessment to Predict Success in Sports: NFL Case Study and Panel Discussion*. Session at the 33rd annual conference of the Society for Industrial and Organizational Psychology, Chicago.
36. Scherbaum, C., Oliver, L., Yusko, K., Goldstein, H., Agnello, P., Stahl, W., Bellenger, B., Crenshaw, J., Dawson, T., Dickson, M., Aiken, J., & Larson, E. (2018, April). *Using Job Component Validity to Hire Quickly and at Low Cost under a Consent Decree*. Poster presented at the 33rd annual conference of the Society for Industrial and Organizational Psychology, Chicago.
37. Kato, A., Scherbaum, C., Dickson, M., Crenshaw, J., Bellenger, B., Beckman, S., Goldstein, H., & Yusko, K. (2018, April). *Examining Agreement in Job Analysis Ratings of Cognitive and Non-Cognitive KSAOs*. Poster presented at the 33rd annual conference of the Society for Industrial and Organizational Psychology, Chicago.
38. Scherbaum, C. (2018, April). Panelist in L. Saari's *Employee Surveys and New Technologies: Privacy and Ethical Issues*. Session at the 33rd annual conference of the Society for Industrial and Organizational Psychology, Chicago.
39. Lee, P., Aiken, J., Chen, T., Dickson, M., Hanges, P., & Scherbaum, C. (2018, April). *Re-examining the Perceived Migration of I-O Psychology to Business Schools*. Poster presented at the 33rd annual conference of the Society for Industrial and Organizational Psychology, Chicago.
40. Scherbaum, C. (2017, July). Panelist in M. Dickson's *From the extreme to the norm: Transferable learnings from challenging assessment situations*. Panel discussion at the annual conference of the International Personnel Assessment Council. Birmingham, AL.
41. Scherbaum, C., Yusko, K., Goldstein, H., Dickson, M., Dawson, T., Allman, R., Giles, K., Agnello, P., & Stahl, W. (2017, July). *Jefferson County Job Components Validity Study*. Paper presented at the annual conference of the International Personnel Assessment Council. Birmingham, AL.
42. Scherbaum, C., Goldstein, H., Yusko, K., Hanges, P., Bellenger, B. (2017, July). *New Developments and Challenges in Cognitive Ability Assessment*. Symposium presented at the annual conference of the International Personnel Assessment Council. Birmingham, AL.

43. Nei, W., Scherbaum, C., & Velychko, G. (2017, May). *Training for success*. Poster presented at the International Convention of Psychological Science, Vienna.
44. Goldstein, H., Yusko, K., Scherbaum, C., Larson, E., & Ryan, R. (2017, April). *Reducing Racial Differences on Intelligence Tests for Personnel Selection*. In K. LaPort's Alternative Measures of g: Not your grandfather's cognitive tests. Symposium at the 32nd annual conference of the Society for Industrial and Organizational Psychology, Orlando, FL.
45. Mitra, P., Park, J. & Scherbaum, C. (2017, April). *Role of the Veil and Target Ethnicity in Selection Decisions*. Poster presented at the 32nd annual conference of the Society for Industrial and Organizational Psychology, Orlando, FL.
46. Pesner, E. & Scherbaum (2017, April). *The Influence of Task Interdependency on Intraindividual Performance Variability*. Poster presented at the 32nd annual conference of the Society for Industrial and Organizational Psychology, Orlando, FL.
47. Scherbaum, C. (2017, April). Panelist in R. Williams' *Practical Guidance for Developing and Implementing Ideal Point Measurement Models*. Panel discussion at the 32nd annual conference of the Society for Industrial and Organizational Psychology, Orlando, FL.
48. Hayrapetyan, L., & Scherbaum, C. (2016, April). *Employee Environmentally Friendly Behaviors in and out of Organizations*. Poster presented at the 31st annual conference of the Society for Industrial and Organizational Psychology, Anaheim, CA.
49. Scherbaum, C. (2016, April). Discussant in P. Coyle's *Measuring Leadership and Followership: Clarifying constructs and items*. Symposium at the 31st annual conference of the Society for Industrial and Organizational Psychology, Anaheim, CA.
50. Scherbaum, C. (2016, April). Panelist in S. Murphy's *Transforming Big and Small Data to Big Insight*. Panel Discussion at the 31st annual conference of the Society for Industrial and Organizational Psychology, Anaheim, CA.
51. Wilson, N., Denese, N., & Scherbaum, C. (2016, May). *Using behavioral assessments to establish construct validity of a modern cognitive ability test*. Poster presented at the Annual Conference of the Association for Psychological Science, Chicago, IL.
52. Yusko, K., Scherbaum, C., & Ryan, R. (2016, April). *Intelligence as a predictor of NFL performance*, In P. Hanges' *The Quarterback Problem: When Predicting Success is Difficult*. Symposium at the 31st annual conference of the Society for Industrial and Organizational Psychology, Anaheim, CA.
53. Oliveira, J., & Scherbaum, C. (2015, May). *Moderating Effect of Job Type on Job Characteristic-Worker Outcome Relationships*. Poster presented at the 27th APS Annual Convention, New York.
54. Oliveira, J., & Scherbaum, C. (2015, August). *Effect of Culture on Job Characteristic-Worker Outcome Relationships*. Poster presented at the APA Annual Convention, Toronto.

55. Scherbaum, C. (2015, April). Panelist in H. Goldstein's *Consulting in High Stakes Scenarios: Lessons Learned*. Panel Discussion at the 30th annual conference of the Society for Industrial and Organizational Psychology, Philadelphia.
56. Scherbaum, C. (2015, April). Panelist in S. Weiner's *Big Data and Identified Employee Surveys: Ethical Issues and Actions*. Panel Discussion at the 30th annual conference of the Society for Industrial and Organizational Psychology, Philadelphia.
57. Scherbaum, C. (2015, April). Panelist in C. Scherbaum's *Executive Board Special Session: A Data-Driven Approach to Improving SIOP: Practicing What We Preach*. Panel Discussion at the 30th annual conference of the Society for Industrial and Organizational Psychology, Philadelphia.
58. Agnello, P. & Scherbaum, C. (2014, May). *Re-exploring the Gender Gap in Mathematics Using a Within-Person Approach*. Poster presented at the 29th annual conference of the Society for Industrial and Organizational Psychology, Honolulu.
59. Ignagni, M., Anderson, J., & Scherbaum, C. (2014, August). Beyond Mean Math Score Differences: Differential Item Functioning Within a Math Self-Concept Measure. Poster presented at the annual conference of the American Psychological Association, Washington D.C.
60. Mitra, P., Smith, C., & Scherbaum, C. (2014, May). *Female Managers: The Role of Implicit Attitudes and Organizational Climate*. Poster presented at the 29th annual conference of the Society for Industrial and Organizational Psychology, Honolulu.
61. Ryan, R., Rothstein, J., Goldstein, H., & Scherbaum, C. (2014, August). *Immigrant Status, Test Attitudes, and Cognitive Ability Test Performance*. Poster presented at the annual conference of the American Psychological Association.
62. Saunderson, R. & Scherbaum, C. (2014, May). *Examining the Impact of Manager Recognition Training on Unit Performance*. Poster presented at the 29th annual conference of the Society for Industrial and Organizational Psychology, Honolulu.
63. Scherbaum, C. (2014, May). Panelist in L. Saari's *Identified Employee Surveys: Complex Ethical Issues and Appropriate Actions*. Debate at the 29th annual conference of the Society for Industrial and Organizational Psychology, Honolulu.
64. Scherbaum, C. (2014, May). Discussant in B. Gladdis' *A Critical Review of Mechanical Turk as a Research Tool*. Symposium at the 29th annual conference of the Society for Industrial and Organizational Psychology, Honolulu.
65. Scherbaum, C. (2014, May). Future Directions for I/O research and practice using EEGs. In M.K. Ward's *Organizational Neuroscience: Using Electroencephalography (EEG) to Study I/O Topics*. Symposium presented at the 29th annual conference of the Society for Industrial and Organizational Psychology, Honolulu.
66. Scherbaum, C. (2014, July). Discussant in W. Reichman's *Organizational Success Through Survey Research*, Symposium presented at the International Congress of Applied

Psychology, Paris.

67. Smith, C., Santuzzi, A., & Scherbaum, C. (2014, May). *Perceptions of Positive Personality in Task Placement: Does Race Matter?* Poster presented at the 29th annual conference of the Society for Industrial and Organizational Psychology, Honolulu.
68. Sywulak, L. Oliveira, J., Rothstein, J., Scherbaum, C., & Goldstein, H. (2014, August). *The role of cognitive style in performance on Raven's*. Poster presented at the annual conference of the American Psychological Association.
69. Youssefnia, D. & Scherbaum, C. (2014, May). Using Segmentation Analysis to Drive Talent Management and Leadership Development. In L. Bousman's *The Employee Segmentation Continuum: Creating Respondent Groups to Spur Action*. Symposium presented at the 29th annual conference of the Society for Industrial and Organizational Psychology, Honolulu.
70. Cohen-Charash, Y., Scherbaum, C. A., Kammeyer-Mueller, J. B., & Staw, B. M. (2013, August). *Mood and the market: Can investors' collective mood predict stock prices?* The Biannual Meeting of the International Society for Research on Emotions, Berkeley, CA.
71. Golubovich, J. & Scherbaum, C. (2013, April). *Impact of Test Design Features on Cognitive Ability Score Differences*. Poster presented at the 28th annual conference of the Society for Industrial and Organizational Psychology, Houston.
72. Mellert, L., Scherbaum, C., Wilke, B., & Froelich, J. (2013, April). *Change hurts: The relationship between organizational change and financial loss*. Poster presented at the 28th annual conference of the Society for Industrial and Organizational Psychology, Houston.
73. Scherbaum, C. (2013, April). Panelist in L. Saari's *Identified Employee Surveys: Potential Ethical Issues and Appropriate Actions*. Debate at the 28th annual conference of the Society for Industrial and Organizational Psychology, Houston.
74. Scherbaum, C. (2013, April). Discussant in M.K. Ward's *Organizational Neuroscience: Classic I-O Topics, Innovative Approaches*. Symposium presented at the 28th annual conference of the Society for Industrial and Organizational Psychology, Houston.
75. Youssefnia, D. & Scherbaum, C. (2013, October). *Big Data, Analytics and HR: What do they have in common?* Presentation at the Northwest Human Resource Management Association Annual Conference, Tacoma, WA.
76. Youssefnia, D. & Scherbaum, C. (2012, October). *Harnessing the power of text analytics to drive human capital*. Presentation at Text Analytics World, Boston.
77. Saunderson, R. & Scherbaum, C. (2012, October). *Improving Retail Branch Performance through Employee Recognition Optimization and Analytics*. Presentation at BAI Retail Delivery Conference, Washington, D.C.

78. Scherbaum, C. & Goldstein, H. (2012, August). *The Evolution of Cognitive Ability Testing: Getting past g*. Paper presented at the annual conference of the American Psychological Association, Orlando, FL
79. Agosta, J., Diaz, C., Mir, H., & Scherbaum, C. (2012, May). *Reducing Adverse Impact Using Modern Cognitive Ability Assessments*. Poster presented at the annual meeting of the Association for Psychological Science.
80. Berger, Y., Denunzio, M., & Scherbaum, C. (2012, August). *Examining Immigrant-Majority Mean Score Differences on Cognitive Ability Tests*. Poster presented at the annual conference of the American Psychological Association, Orlando, FL.
81. Blanshteyn, V. & Scherbaum, C. (2012, April). *An item stimulus approach to understanding sources of item difficulty*. Poster presented at the 27th annual conference of the Society for Industrial and Organizational Psychology, San Diego.
82. Sabet, F., Scherbaum, C., & Goldstein, H. (2012, April). *Examining Criterion-related Validity and Score Differences on Neuropsychological Intelligence Tests*. Poster presented at the 27th annual conference of the Society for Industrial and Organizational Psychology, San Diego.
83. Scherbaum, C. (2012, April). Moderator in P. Rutigliano's *Identified Surveys: Appropriate usage and practical professional guidelines*. Debate presented at the 27th annual conference of the Society for Industrial and Organizational Psychology, San Diego.
84. Scherbaum, C., Hanges, P., Yusko, K., Goldstein, H., & Ryan, R. (2012, April). *The Spearman Hypothesis Cannot Explain All Racial Score Differences*. In L. Hough's Racial Differences in Personnel Selection: Complex Findings and Ongoing Research Symposium. Symposium presented at the 27th annual conference of the Society for Industrial and Organizational Psychology, San Diego.
85. Youssefnia, D. & Scherbaum, C. (2012, April). *Measuring Culture from the Tip of the Iceberg*. In J. Hudson's Balancing Rigor and Reality When Doing Organizational Culture Research. Symposium presented at the 27th annual conference of the Society for Industrial and Organizational Psychology, San Diego.
86. Yusko, K., Goldstein, H., Scherbaum, C., & Hanges, P. (2012, April). *Siena Reasoning Test: Measuring Intelligence with Reduced Adverse Impact*. Invited M. Scott Myers Award talk at the 27th annual conference of the Society for Industrial and Organizational Psychology, San Diego.
87. Mondo, L., Froelich, J., Youssefnia, D., & Scherbaum, C. (2011, April). *Group and Individual Level Characteristics in Predicting Survey Response Time*. Poster presented at the 26th annual conference of the Society for Industrial and Organizational Psychology, Chicago.
88. Golubovich, J. & Scherbaum, C. (2011, April). *Choosing Female Managers: What Attitudes Have to Do With It*. Poster presented at the 26th annual conference of the Society for Industrial and Organizational Psychology, Chicago.

89. Higgs, A., Sywulak, L., & Scherbaum, C. (2011, May). *Effects of Stereotype Threat on Alternative Cognitive Tests*. Poster presented at the Annual Convention of the American Psychological Association, Washington, DC
90. Goldstein, H.W., Scherbaum, C.A., Yusko, K.P., Ryan, R., & Hanges, P.J. (2010, December). *Testing for Cognitive Ability with Reduced Adverse Impact: Hiring in Work Organizations*. Presentation at the 11th Conference of the International Society for Intelligence Research, Washington, D.C.
91. Boyd, B. & Scherbaum, C. (2010, April). *Implicit job satisfaction*. Poster presented at the 25th annual conference of the Society for Industrial and Organizational Psychology, Atlanta.
92. Scherbaum, C. (2010, April). Panelist in L. Saari's *Identified Employee Surveys: Pros, Cons, What We Know/Don't Know*. Debate presented at the 25th annual conference of the Society for Industrial and Organizational Psychology, Atlanta.
93. Pascall-Gonzalez, R. Scherbaum, C., Ferreter, J., & Golubovich, J. (2010, April). *Examining Subgroup Differences on Cognitive Tests Using Mixed-measurement IRT Models*. Symposium presented at the 25th annual conference of the Society for Industrial and Organizational Psychology, Atlanta.
94. Scherbaum, C. (2010, August). Discussant in S. Ashworth's *A long-term implementation of job component validity: A 10-year follow-up*. Symposium presented at the annual conference of the American Psychological Association, San Diego.
95. Fisher, D. & Scherbaum, C. (2009, November). *How leadership judgment impacts performance: A practical guide for consulting psychologists*. Paper presented at the annual convention of the Illinois Psychological Association.
96. Fyman, J. & Scherbaum, C.A. (2009, April). *Examining the Factor Structure of Team-Member Exchange*. Poster presented at the 24th annual conference of the Society for Industrial and Organizational Psychology, New Orleans.
97. Naidoo, L.J., Scherbaum, C.A., & Goldstein, H.W. (2009, April). *A Longitudinal Examination of LMX, Ability, Differentiation and Team Performance*. Poster presented at the 24th annual conference of the Society for Industrial and Organizational Psychology, New Orleans.
98. Scherbaum, C.A. (2009, April). Panel member in C. Scherbaum & P. Steel's *Synthetic Validity: Practical Questions and Answers*. Panel Discussion at the 24th annual conference of the Society for Industrial and Organizational Psychology, New Orleans.
99. Blanshteyn, V., Scherbaum, C.A., Marshall, E., McCue, E.A., & Strauss, R. (2008, April). *Examining the Effects of Stereotype Threat on Individual Test Taking Behaviors*. Poster presented at the 23rd annual conference of the Society for Industrial and Organizational Psychology, San Francisco.

100. Cohen-Charash, Y., Erez, M., & Scherbaum, C. (2008, April). *Firgun – Being Happy for another Person's Good Fortune*. In Y. Cohen-Charash, M. Erez, M., & C. Scherbaum's (Chairs) When Good Things Happen to Others: Envy and Firgun Reactions symposium at the 23rd annual conference of the Society for Industrial and Organizational Psychology, San Francisco.
101. Ferreter, J.M., Goldstein, H.W., Scherbaum, C.A., & Yusko, K.P. (2008, April). *Reducing Adverse Impact using a Nontraditional Cognitive Ability Assessment*. Poster presented at the 23rd annual conference of the Society for Industrial and Organizational Psychology, San Francisco.
102. Scherbaum, C. A. (2008, August). Discussant in J. Foster's *Synthetic validity: New directions and old questions answered*. Symposium presented at the annual meeting of the Academy of Management, Anaheim, CA.
103. Boyd, B. & Scherbaum, C. (2007, April). *Examining Implicit and Explicit Attitudes Towards Female Managers*. Poster presented at the 22nd annual conference of the Society for Industrial and Organizational Psychology, New York.
104. Kern, M. & Scherbaum, C. (2007, April). *Measuring Goal Commitment: A Comparison of Two Measures Using Item Response Theory*. Poster presented at the 22nd annual conference of the Society for Industrial and Organizational Psychology, New York.
105. Scherbaum, C.A. & Andreoli, N. (2007, May). *Individual difference variables and perceived fakability of the IPIP*. Poster presented at the Annual Conference of the American Psychological Society, Washington, D.C.
106. Scherbaum, C. & Black, J. (2007, April). *Financial and Managerial Determinants of Employee Engagement*. Paper submitted in C. Scherbaum & J. Black's (Chairs) Financial and managerial determinants of engagement symposium to the 22nd annual conference of the Society for Industrial and Organizational Psychology, New York.
107. Thompson, C. A., Martin, M., Poelmans, S., & Scherbaum, C. (2007). *Work-family Culture and Policies: Evidence from Spain*. Paper presented at the 2007 International Conference on Work and Family, July, Barcelona, Spain.
108. Ferreter, J.M., & Scherbaum, C.A. (2006, August). *A mixed measurement model analysis of the importance of intrinsic and extrinsic work rewards across cultures*. Interactive poster to be presented at the 48th Meeting of the Academy of International Business, Beijing, China.
109. Ferreter, J.M., Scherbaum, C.A., & Kern, M.J. (2006, May). *Examining faking on personality inventories using unfolding IRT models*. Poster to be presented at the 21st annual conference of the Society for Industrial and Organizational Psychology, Dallas, TX.
110. Scherbaum, C.A., & Fyman, J. (2006, May). *Influence of beliefs about team personality on team performance ratings*. Poster to be presented at the 21st annual conference of the Society for Industrial and Organizational Psychology, Dallas, TX.
111. Scherbaum, C., Goldstein, H. & Hayrapetyan, L. (2006, May). *Examining the relationship*

- between differential item functioning and item difficulty.* Poster to be presented at the 21st annual conference of the Society for Industrial and Organizational Psychology, Dallas, TX.
112. Andreoli, N., & Scherbaum, C.A. (2005, August). *Perceived job relevance of the international personality item pool.* Poster presented at the annual conference of the American Psychological Association, Washington, D.C.
 113. Brennan, A. & Scherbaum, C. A. (2005, June). *Item response theory: Applications and opportunities for I-O psychology.* Paper presented in F. Chiochio's (Chair), Is there a better way?: Examining a few different methods that can help generate new knowledge in I-O Psychology at the 66th conference of the Canadian Psychological Association, Montreal, Canada.
 114. Cohen-Charash, Y., Scherbaum, C. A., Erez, M., & Bavli, K. (2005, May). *I am so happy for you: Firgun in organizations.* Paper presented at the annual meeting of the Role of Emotions in Organizational Life, Toronto, Canada.
 115. Ferreter, J. M. & Scherbaum, C. A. (2005, August). *An examination of the measurement equivalence of importance ratings of intrinsic and extrinsic work rewards.* Poster presented at the annual meeting of the Academy of Management, Honolulu, HI.
 116. Offenstein, J., Cohen-Charash, Y., & Scherbaum, C. A. (2005, August). *The effects of unfavorable outcomes and procedural justice on cognitive appraisals and emotions: An experimental study.* Paper presented at the annual meeting of the Academy of Management, Honolulu, HI.
 117. Scherbaum C.A., Cohen-Charash, Y., & Kern, M. (2005, April). *Measuring general self-efficacy: A comparison of three measures using IRT.* Poster presented at the 20th annual conference of the Society for Industrial and Organizational Psychology, Los Angeles, CA.
 118. Scherbaum, C.A., Yusko, K., Goldstein, H., & Kern, M. (2005, April). *Differential person functioning related to biodata item attributes.* Poster presented at the 20th annual conference of the Society for Industrial and Organizational Psychology, Los Angeles, CA.
 119. Staw, B. M., Cohen-Charash, Y., & Scherbaum, C. A. (2005, June). *Emotions and the stock market.* Paper presented at the Affect and Emotions in Organizational Behavior Conference, Rotterdam, Holland.
 120. Thomas, E., & Scherbaum, C. A. (2004, June). *The influence of implicit theories of personality on team performance ratings.* Poster presented at the 15th annual conference of the American Psychological Society, Chicago, IL.
 121. Scherbaum, C. A. (2003, April). Panel discussant in J. B. Vancouver's (Chair) *Computational modeling of dynamic organizational phenomenon.* Roundtable session at the 18th annual conference of Society for Industrial and Organizational Psychology, Orlando, FL.

122. Scherbaum, C. A., Finlinson, S., & Vancouver, J. B. (2003, April). *Applying computational and multilevel modeling to Ackerman's skill acquisition model*. Poster presented at the 18th annual conference of the Society for Industrial and Organizational Psychology, Orlando, FL.
123. Scherbaum, C. A., Scherbaum, K. L., & Popovich, P. M. (2003, June). *Development and validation of the attitudes toward employees with disabilities scale*. Poster presented at the 15th annual conference of the American Psychological Society, Atlanta, GA.
124. Scherbaum, K. L., Scherbaum, C. A., & Popovich, P. M. (2003, June). *Sex Differences in perceptions of same-sex and opposite-sex sexual harassment*. Poster presented at the 15th annual conference of the American Psychological Society, Atlanta, GA.
125. Popovich, P. M., Finlinson, S., Scherbaum, C. A., Wilson, S., Hoffer, K., & Sinozich, A. (2002, April). *Exploring factors related to energy conservation behaviors in organizations*. Poster presented at the 17th annual conference of the Society for Industrial and Organizational Psychology, Toronto, Canada.
126. Popovich, P. M., Finlinson, S., Scherbaum, C. A., Wilson, S., Hoffer, K., & Sinozich, A. (2002, August). *Organizational energy conservation: assessing knowledge, attitudes, social norms, and behaviors*. Poster presented at the annual conference of the American Psychological Association, Chicago, IL.
127. Scherbaum, C. A., & Vancouver, J. B. (2002, April). *Testing two explanations for goal-setting effects: A persistent question*. Poster presented at the 17th annual conference of the Society for Industrial and Organizational Psychology, Toronto, Canada.
128. Scherbaum, C. A., & Vancouver, J. B. (2002, April). *Testing a computational goal-discrepancy reducing model of discrepancy production*. In J. Vancouver (Chair), Goal perception discrepancy production: Current theoretical and practical issues. Symposium paper presented at the 17th annual conference of the Society for Industrial and Organizational Psychology, Toronto, Canada.
129. Scherbaum, C. A., Scherbaum, K. L., & Popovich, P.M. (2001, May). *The reasonableness of accommodations for disabled workers: Perceptions of accommodations among college students*. Poster presented at the 73rd Midwestern Psychological Association convention, Chicago, IL.
130. Scherbaum, C. A., Scherbaum, K. L., Tischner, E., & Popovich, P. M. (2001, April). *Predicting job-related expectancies of disabled employees from previous work experience*. Poster presented at the 16th annual conference of the Society for Industrial and Organizational Psychology, San Diego, CA.
131. Larrimer, K. A., Scherbaum, C. A., & Popovich, P. M. (2000, June). *Attitudes towards the Americans with Disabilities Act and reasonable accommodation*. Poster presented at the 12th annual conference of the American Psychological Society, Miami, FL.
132. Popovich, P. M., Polinko, N., Larrimer, K. A., & Scherbaum, C. A. (2000, May). *The Americans with Disabilities Act and reasonable accommodation: Beliefs, affect, and*

behaviors. Poster presented at the 72nd Midwestern Psychological Association convention, Chicago, IL.

133. Scherbaum, C. A., & Vancouver, J. B. (2000, June). *Discrepancy creation from discrepancy reduction: A working model*. Poster presented at the 12th annual conference of the American Psychological Society, Miami, FL.
134. Vancouver, J. B., Putka, D. J., & Scherbaum, C. A. (2000, August). *How control theory accounts for goal-setting: An empirical investigation*. Paper presented at the Annual Conference of the Academy of Management, Toronto, Canada.
135. Zollo, J. S., Scherbaum, C. A., & Vancouver, J. B. (1999, May). *Goal setting in perfect markets*. Poster presented at the 71st Midwestern Psychological Association convention, Chicago, IL.

Invited Presentations (28)

1. Goldstein, H., Yusko, K., Scherbaum, C., & Larson, E. (2021, February). *Assessing and Developing Talent: Lessons Learned from the NFL Project*. Invited talk at the Metropolitan New York Association for Applied Psychology.
2. Yusko, K., Goldstein, H., Scherbaum, C., & Larson, E. (2020, October). *Modern approaches to the assessment of cognitive ability*. Best Practices in Modernizing Assessments sponsored by the Office of Personnel Management and Office of Management and Budget.
3. Scherbaum, C., (2020, September). *Psychological Perspectives on Retaliation: Potential Causes and Solutions*. EEOC Technical Assistance Program Seminar – New York.
4. Scherbaum, C., Goldstein, H., & Yusko, K. (2019, October). *Using Psychological Assessments to Predict Player Performance in the NFL*. Society for Industrial and Organizational Psychology's Leading Edge Consortium, Atlanta.
5. Yusko, K., Goldstein, H., & Scherbaum, C. (2019, July). *Modern approaches to the assessment of cognitive abilities*. Presentation at the annual meeting of the International Personnel Assessment Council. Minneapolis, MN.
6. Yusko, K., Goldstein, H., & Scherbaum, C. (2019, June). *Moneyball Plus: Predicting Player Performance Using Psychological Assessments in Sports*. Presentation at the KPMG Sports Analytics World Series. Amsterdam.
7. Trindel, K. & Scherbaum, C. (2019, March). *Modern approaches to assessment for employment selection*. Featured Speaker Presentation at the annual meeting of the Association of Test Publishers. Orlando, FL.
8. Scherbaum, C. (2018, November). *Assessment Driven Managerial Development: Personalizing Micro Learning for Macro Results*. HRO Today Forum – EMEA. Amsterdam.

9. Scherbaum, C., (2018, June). *Psychological Perspectives on Retaliation: Potential Causes and Solutions*. EEOC Technical Assistance Program Seminar – New York.
10. Scherbaum, C. (2018, May). *Assessment Driven Managerial Development: Personalizing Micro Learning for Macro Results*. HRO Today Forum – North America. Washington, D.C.
11. Yusko, K., Goldstein, H., & Scherbaum, C. (2018, October). *Using Data Analytics to Identify & Hire Elite Performers in the Workplace—Lessons Learned from the NFL Combine*. Texata Summit. Austin, TX.
12. Yusko, K., Goldstein, H., & Scherbaum, C. (2018, March). *Moneyball Plus Predicting Player Performance Using Psychological Assessment: A Comparison Across the Major Sports*. MIT Sloan Sports Analytics Conference. Boston, MA.
13. Scherbaum, C. (2017, May). *Leveraging Analytics and Leadership Development to Drive Engagement Creation and Improve Business Performance*. HRO Today Forum – North America. Chicago, IL.
14. Scherbaum, C. (2017, November). *Celebrating Employees!: Best Practices in Recognition*. HRO Today Forum – EMEA. Dublin, Ireland.
15. Yusko, K., Scherbaum, C., & Goldstein, H. (2017, March). *NFL Player Assessment Test: Using Psychological Tests to Predict Player Performance in the NFL*. MIT Sloan Sports Analytics Conference. Boston, MA. https://youtu.be/40NV3_u9tYY
16. Scherbaum, C. (2016, March). *New Developments in Intelligence*. Invited talk at Wayne State University.
17. Scherbaum, C. (2016, April). *The New Frontier of Human Capital Analytics*. Enterprise Engagement Alliance Forum. Orlando, FL.
18. Scherbaum, C. (2016, November). *Leveraging Analytics and Leadership Development to Drive Engagement Creation and Improve Business Performance*. HRO Today Forum – EMEA. Edinburgh, Scotland.
19. Scherbaum, C. (2015, June). *Rethinking Intelligence: Conceptualization, Use, and Measurement*. Invited talk at the Metropolitan New York Association for Applied Psychology.
20. Scherbaum, C. (2015, May). *Expert Panel Discussion: Beyond the Basics – Creating Truly Healthy Office Environments*. Invited Panel Discussion at the 2015 WorkTech Conference, New York. <https://vimeo.com/channels/worktechtv/129122499>
21. Scherbaum, C. (2014, April). *Big Data and analytics: Unleashing the Potential of Enterprise Engagement*. Enterprise Engagement Alliance Forum. Memphis, TN.
22. Scherbaum, C.A. (2010, August). *Integrity testing as a strategy for reducing counter-productive work behaviors*. Invited talk to the Singapore Psychological Society, Singapore.

23. Scherbaum, C.A. (2009, November). *Synthetic validity: An introduction to useful, but unused approach to establishing validity evidence*. Invited talk at the Fall conference of Mid-Atlantic Personnel Assessment Consortium, Albany, NY.
24. Scherbaum, C.A. (2009, April). *What roles do employee honesty and integrity play within the human factor concept?* Invited talk at Risk Talk series of the Swiss Re Centre for Global Dialogue, Zurich.
25. Scherbaum, C.A. (2007, October). *Introduction to techniques for detecting faking on non-cognitive employment measures*. Invited talk at the Fall conference of Mid-Atlantic Personnel Assessment Consortium, Albany, NY.
26. Scherbaum, C.A. (2007, May). *Applications of item response theory to personnel assessment: Introduction and overview*. Invited talk at the spring conference of Mid-Atlantic Personnel Assessment Consortium, Harrisburg, PA.
27. Scherbaum, C.A. (2006, January). *Applications of item response theory to patient-reported data on health outcomes and behavior*. Invited talk at the National Development Research Institute, New York, NY.
28. Scherbaum, C.A. (2004, April). *Assessment and evaluation: Basic concepts and principles*. Presentation at the 7th annual Baruch College Teaching and Technology Conference, New York, NY.

External Grant Funding (Total Funding: \$1,336,703)

1. Differential item functioning and item properties of standardized cognitive tests (2005-2006). *Wonderlic, Inc.'s Research Donation Program*, PI (\$2,000)
2. Basic and Applied Dimensions of Scientific Psychology: Research Experience for Undergraduates at Baruch College – CUNY *National Science Foundation*, PI, 2007-2010 (\$269,787)
3. Improving Graduate Business School Admissions: Supplementing the GMAT with Alternative Predictors. *MERInstitute of the Graduate Management Admissions Council*, PI, 2010-2011 (\$100,000).
4. Basic and Applied Dimensions of Scientific Psychology: Research Experience for Undergraduates at Baruch College – CUNY. *National Science Foundation*, co-PI, 2010-2013 (\$282,021)
5. Basic and Applied Dimensions of Scientific Psychology: Research Experience for Undergraduates at Baruch College – CUNY. *National Science Foundation*, PI, 2019-2022 (\$335,000)
6. REU Site: Undergraduate Research in Basic and Applied Science of Psychology. *National Science Foundation*, co-PI, 2022-2025 (\$347,895)

Internal Grant Funding (Total Funding: \$104,351)

1. The Influence of Implicit Theories about Team Personality Characteristics on Ratings of Team Performance. *PSC-CUNY 35*, 2004-2005, PI (\$4,480).
2. Differential item functioning and item properties of standardized cognitive tests. *Eugene M. Lang Fellowship Program*, 2005-2006, PI (\$7,000).
3. Detecting response distortion on non-cognitive predictors of job performance. *City University of New York Research Equipment Grants Program*, 2004, PI (\$5,450)

4. Differential item functioning and item properties of standardized cognitive tests. *PSC-CUNY 36*, 2005-2006, PI (\$3,816).
5. Examining the Effects of Stereotype Threat on Individual Test Taking Behaviors. *PSC-CUNY 37*, 2006-2007, PI (\$3,664)
6. Examining the Impact of Explicit and Implicit Attitudes towards Female Managers. *PSC-CUNY 39*, 2008-2009, PI (\$3,285).
7. Reading the mind in the eyes. *Graduate Research Technology Initiative (GRTI)-15*, 2012, co-PI (\$55,000).
8. Neurocognitive measures of employee engagement. *PSC-CUNY 47*, 2015-2016, PI (\$3,500).
9. In the Mind's Eye: Mobile Eye Tracking as a Tool for Understanding Human Behavior. *Graduate Research Technology Initiative (GRTI)-23*, 2021, PI (\$25,000).

Awards

- 2023 Innovation in Assessment Award from the International Personnel Assessment Council (Project title: *National Football League's Player Assessment Test*).
- 2021 M. Scott Myers Award for Applied Research in the Workplace from the Society for Industrial and Organizational Psychology. Project title: *Development and implementation of the National Football League Player Assessment Test*.
- 2021 Human Resource Management Impact Award from the Society for Human Resource Management and the Society for Industrial and Organizational Psychology. Project Title: *Merck General Management Acceleration Program*.
- 2018 Adverse Impact Reduction Research Initiative and Action (AIRRIA) Research Grant from the Society for Industrial and Organizational Psychology (Project title: *Using Neurocognitive Methods to Understand Sources of Adverse Impact on Cognitive Ability Tests*).
- 2017 Innovation in Assessment Award from the International Personnel Assessment Council (Project title: *Jefferson County and Siena Consulting Job Components Validity Study*).
- 2017 HRO Today Global Forum – HR Global Superstar.
- 2017 HRO Today – Tek Tonic Award.
- 2011 M. Scott Myers Award for Applied Research in the Workplace from the Society for Industrial and Organizational Psychology. Project title: *Development and Implementation of the Siena Reasoning Test*.
- 2011 Innovation Award from the International Personnel Assessment Council (Yusko, Goldstein, Scherbaum, and Hanges; Project title: *Siena Reasoning Test*).
- Mrs. Giles Whiting Foundation Fellowship, 2005 (\$2000 to support research activities)
- Honorable mention, the Organization Development Institute's 2002 Outstanding O.D. Project of the Year Worldwide. Project title: *Exploring Factors Related to Energy Conservation Behaviors in Organizations*
- Ohio University Doctoral Fellow, 2001-2003
- Ohio University College of Arts and Sciences Outstanding Graduate Student Teaching Award, 2001-2002

Academic Experience

August 2017-Present

Professor, Department of Psychology, *Baruch College, City University of New York*, New York, NY
Undergraduate courses: Introduction to Psychology, Industrial and Organizational Psychology, Advanced Personnel Psychology, Practicum in Lab and Research Methods

Master's Courses: Research Methodology in the Design of Psychological Research, Psychometric Methods, Quantitative Methods for Business Decisions

International Executive Master's Courses (Taiwan and Singapore):

Psychological Perspectives on International Human Resource Management, Quantitative Methods for Business Decisions

Ph.D. Courses: Advanced Psychometrics, Research Methods, Performance Management, Organizational Psychology

September 2007-
August 2017

Associate Professor, Department of Psychology, *Baruch College, City University of New York*, New York, NY

September 2003-
August 2007

Assistant Professor, Department of Psychology, *Baruch College, City University of New York*, New York, NY

Fall 2000-Spring 2003

Instructor, *Ohio University, Department of Psychology*, Athens, OH
Undergraduate courses: Statistics for the Behavioral Sciences, Introduction to Psychology, Survey of Industrial and Organizational Psychology

Fall 2002

Instructor, *Ohio University and Hong Kong Baptist University, School of Continuing Education*, Hong Kong
Undergraduate courses: Introduction to psychology, Survey of Industrial and Organizational Psychology

Consulting Experience

November 2008-Present

Owner, *Cielo Management Consulting, LLC*, New York, NY
Cielo Management Consulting provides human resource management consulting services in the areas of selection and assessment, performance management, employment discrimination litigation support, human capital research, employee surveying, and statistical analysis. A sample of clients include:

Morgan Stanley	UNICEF
National Football League	Pennsylvania Power & Light
Hilton Worldwide	Chicago Public Schools
Philadelphia Parking Authority	NYC Department of Education
Bristol, Myers, Squibb	City of Dayton, OH (Police & Fire)
Merrill Lynch	Royal Bank of Canada
Accenture	The Medicine's Company
New York Court System	Intuit
Glint/LinkedIn	Wendy's
Owens Corning	Jefferson County, AL
Prudential	Hunova
Port of Seattle	Southwest Airlines
City of Stamford, CT	City of Akron, OH (Fire)
United Nations	Engage2Excel

Expert witness consultation:

- 2005-2011 Ahroner v. Israel Discount Bank. No. 602192/03 (DNY).
Plaintiff. Conducted statistical analyses on performance appraisal systems and termination decisions, reviewed documents. Issued report.
- 2007 NTEU and FDIC Arbitration, Case# 1276. Plaintiff. Provided advice to NTEU.
- 2009-2015 Morgan Stanley Smith Barney Consolidated Agreement (Formerly Amochaev v. Citigroup Global Markets-Smith Barney and Augst-Johnson v. Morgan Stanley). Case No. 1:06-cv-01142 (RWR) and Case No. C-05-1298 PJH (N.D. Cal).
Neutral for both parties. Provided advice to Smith Barney and Morgan Stanley, reviewed change initiatives, conducted statistical analyses on selection tests.
- 2009-2015 Jaffe v. Morgan Stanley Smith Barney (Formerly Jaffe v. Morgan Stanley). Case No. C-06-3903 (THE).
Neutral for both parties. Provided advice to Smith Barney and Morgan Stanley, reviewed change initiatives, conducted statistical analyses on selection tests.
- 2011-Present United States, The Vulcan Society, et al. v. City of New York and Uniformed Firefighters Association of Greater New York. 07-CV-2067 (NGG) (RLM)
Plaintiff. Provided advice to the Vulcan Society on new selection tests and validation studies.
- 2012-2019 United States v. City of Dayton, Civil Action No. 3:08-cv-348 (TMR)
Defendant. Provided advice to the City of Dayton, conducted test development, conducted validation studies, and conducted adverse impact analyses for entry level police and fire positions.
- 2013 Emmer v. Trustees of Columbia University. No. 151510/2013 (DNY)
Plaintiff. Conducted statistical analyses of termination decisions. Issued report.
- 2014-2016 Calibuso v. Bank of America, et al, Case No: 2:10-CV-01413(PKC)(AKT).
Defendant. Conducted statistical analyses of financial advisor teams.
- 2018 United States v. Buffalo, et al, W.D.N.Y. 74-CV-195C
Plaintiff, Lawyers Committee for Civil Rights. Provided advice to the Lawyers Committee on test development, validation, and methods of use of selection tests.
- 2019-2020 United States v. Rhode Island Department of Corrections, Civil Action No.: 1:14-cv-78(S).
Plaintiff. Provided advice to the United States Department of Justice on test development and validation. Reviewed defendant's job analysis, tests, validation study, and adverse impact results as part of a consent decree settlement.
- 2019-2021 Richardson et al. v. City of New York. 17-CV-9447 (JPO).
Plaintiff. Conducted adverse impact analyses on compensation, hiring, and promotions systems for FDNY civilian jobs. Issued reports and provided deposition testimony.

- 2019-Present Simpson et al. v. Cook County Sheriff Department, Case No. 18 C 553
Plaintiff. Conducted adverse impact analyses, reviewed defendant's selection systems. Issued reports and provided deposition testimony.
- 2019-Present Chalmers, et al. v. City of New York. Case No. 1:20-cv-03389-AT
Plaintiff. Conducted adverse impact analyses on compensation. Reviewed the similarity of tasks and KSAOs for different job titles. Issued reports and provided deposition testimony.
- 2020-2023 Harriott et al. v. Washington Metropolitan Area Transit Authority, Civil Action No. 19-cv-01656-TJK (D.C.)
Plaintiff. Conducted adverse impact analyses of termination decisions. Issued reports and provided deposition testimony.
- 2020 Ross et al. v. Lockheed Martin Corp., Civil No. 1:16-CV-2508.
Plaintiffs. Conducted analyses of performance appraisal and compensation systems.
- 2020-2021 EEOC v. Stan Koch & Sons Trucking, Civil Action No: 0:19-cv-02148
Plaintiff. Provided advice to the EEOC on test development and validation. Reviewed defendant's job analysis and validity evidence. Issued reports and provided deposition testimony.
- 2020-2021 EEOC v. Schuster, Co., Civil Action No: 5:19-cv-4063
Plaintiff. Provided advice to the EEOC on test development and validation. Reviewed defendant's job analysis and validity evidence. Issued reports and provided deposition testimony.
- 2020-Present United States et al. v. Consolidated City of Jacksonville, Jacksonville Association of Fire Fighters, Local 122, IAFF, Case No. 3:12-cv-451-J-32MCR.
Plaintiff. Provided advice to the United States Department of Justice on test development and validation. Reviewed defendant's job analysis, tests, validation studies, and adverse impact results as part of a consent decree settlement.
- 2020-Present United States v. Baltimore County, Maryland, Civil Action No. 1:19-cv-02465.
Plaintiff. Provided advice to the United States Department of Justice on test development and validation. Reviewed defendant's job analysis, tests, validation study, and adverse impact results as part of a consent decree settlement.
- 2021-2022 Hispanic National Law Enforcement Association, United Black Police Officers Association et al. v. Prince George's County et al., Civil Action No. TDC-18-3 821.
Neutral. Court appointed neutral expert charged to review existing promotional processes and provide recommendations for modifications to reduce adverse impact and improve job relatedness.
- 2021-2022 United States v. City of Fayetteville Fire Department
Plaintiff. Advised the United States Department of Justice as part of their investigation of the entry-level selection procedures.
- 2021-2023 United States v. City of Cleveland Fire Department

Plaintiff. Advised the United States Department of Justice as part of their investigation of the entry-level and promotional selection procedures.

- 2021-2023 United States v. Charles County, MD Sheriff's Office
Plaintiff. Advised the United States Department of Justice as part of their investigation of the entry-level and promotional selection procedures.
- 2021-Present United States v. City of Durham Fire Department
Plaintiff. Advised the United States Department of Justice as part of their investigation of the entry-level selection procedures.
- 2021-Present Pappas, et al. v. District of Columbia, et al. Civil Action No. 19-2800 (RC)
Plaintiff. Conducted an analysis of job similarity for job re-assignment. Issued report and provided deposition testimony.
- 2022 Dingle, et al. v City of Stamford, et al. - J.D. Waterbury, Complex Litigation Docket X06
Defendant. Advised City of Stamford on professional practices for test scoring.
- 2022-Present EEOC v. Yale New Haven Hospital, Inc. Case No. 3:20-cv-00187-VLB (D. Conn.)
Plaintiff. Provided advice to the EEOC on the defendant's job analysis and validity evidence. Issued report and provided deposition testimony.
- 2022-2024 EEOC v. Hospital Housekeeping Systems, LLC Case No. 2:21-cv-02134 PKH (W.D. Ark.)
Plaintiff. Provided advice to the EEOC on the defendant's job analysis and validity evidence. Issued report and provided deposition testimony.
- 2023 Montana v. City of Mount Vernon and Mount Version Fire Department Case No. 21-cv-260 (KMK)
Plaintiff. Reviewed entry-level selection procedures. Issued report.
- 2023-2024 United States v. Charlotte-Mecklenburg Police Department
Plaintiff. Advised the United States Department of Justice as part of their investigation of the entry-level selection procedures.
- 2023-2024 United States v. South Bend Police Department
Plaintiff. Advised the United States Department of Justice as part of their investigation of the entry-level selection procedures.
- 2023-Present United States v. Maryland Department of State Police
Plaintiff. Advised the United States Attorneys' Office and the United States Department of Justice as part of their investigation of the entry-level selection procedures.
- 2023-Present United States v. Suffolk County Police, NY Civil Action no. CV-83-2737
Plaintiff. Provided advice to the United States Department of Justice on test development and validation as part of a consent decree settlement.

- 2023-Present Myers v. County of Nassau, Nassau County Civil Service Commission, and Nassau County Police Department Docket No. 22-cv-7023
Plaintiff. Reviewed entry-level selection procedures and provided advice to plaintiff's lawyers.
- 2023-Present United Probation Officers Association v. City of New York, Case No. 21-cv-218
Plaintiff. Conducted analyses of compensation systems and provided advice to plaintiff's lawyers.
- 2023-Present EEOC v. Leach Garner, Civil Action No. 23-cv-11014
Plaintiff. Provided advice to the EEOC on the defendant's hiring and job placement practices.
- 2024-Present EEOC v. Walmart Inc., Walmart Stores Arkansas, Civil Action No. 5:23-cv-05149-TLB
Plaintiff. Provided advice to the EEOC on the defendant's job analysis and validity evidence. Issued report.
- 2024-Present Brigida et al. v. Buttigieg et al., Civil Action No. 16-2227 (DLF)
Defendant. Provided advice to the U.S. Department of Transportation on the plaintiff's expert's report and analysis related to selection procedures.
- 2024-Present EEOC v. Sheetz, Inc, et al., Civil Action No. 1:24-cv-01123
Plaintiff. Conduct analyses of employee selection procedures.
- 2024-Present EEOC v. Union Pacific Railroad, Civil Action No. 0:23-cv-3030
Plaintiff. Provided advice to the EEOC on the defendant's job analysis and validity evidence.

Expert Advisory Panels:

- 2013-2015 United States Department of Labor. Evaluating the Accessibility of American Job Centers for People with Disabilities.

Other Consulting Positions:

- August 2007-December 2015 Research and Analytics Advisor, *Critical Metrics*, New York, NY
Design and execute custom research and analytics for employee and customer research.
- August 2007-January 2014 Research and Analytics Advisor, *Fisher Rock Consulting*, New York, NY
Developed and managed research projects examining the operations of global mobility programs, human capital models, employee engagement, test validity, and performance management systems.
- March 2006-January 2008 Consultant, *Sirota Survey Intelligence*, New York, NY

Conducted statistical analyses and project management of studies examining the relationships between human resource activities and financial and market performance of organizations.

January 2005-August 2005 Consultant, *Kognito Solutions*, New York, NY
Designed and conducted a program evaluation of computer-based of financial literacy tutorials, conducted review of current and existing products, advised on the design of program assessments.

May 2001-August 2001 Consultant, *Ohio University and Vestar, Inc.*, Athens, OH
Conducted focus groups, developed a survey-based intervention for Ohio University's energy conservation campaign, and conducted the follow-up evaluation of the intervention.

Work Experience

June 1998-August 1998 Lead Personnel Records Technician, *Washington Mutual, HR Operations Department*, Seattle, WA
Supervised six employees in the processing of new employees into the payroll system. Resolved problems and discrepancies for managers, recruiters, and new employees. Verified and audited records, and regulated workflow. Trained employees to use PeopleSoft and Excel.

January 1998-May 1998 Employment Assistant, *Washington Mutual, Employment Department*, Seattle, WA
Assisted recruiters and managers with staffing and recruitment policies and procedures. Audited job files for compliance with OFCCP and EEOC regulations. Maintained national staffing reports, opened and closed staffing requisitions, and trained new employees. Received advanced training in Excel and PeopleSoft.

August 1997-January 1998 Human Resource Intern, *Prudential Preferred Financial Services*, Seattle, WA
Assisted with the recruitment of new agents, conducted individual and group interviews, administered selection tests, and conducted employee surveys.

Professional Activities

2020-2022 Awards Committee, SIOP Anti-Racism Grant and Zedeck-Jacobs Adverse Impact Research Grant
2023-Present Chair of the Zedeck-Jacobs Adverse Impact Research Grant Committee, SIOP
2019-Present President, Northeastern Chapter of the International Personnel Assessment Council.
2016-Present Head of the Ph.D. program in Industrial and Organizational Psychology, City University of New York.
2018-2020 Program committee for the Talent Analytics Conference, Society for Industrial and Organizational Psychology

2012-2015	Chair of the Institutional Review Committee, Society for Industrial and Organizational Psychology
2010-2011	President of the Metropolitan New York Association for Applied Psychology
2009-2010	Vice-president of the Metropolitan New York Association for Applied Psychology
2008-2009	Treasurer of the Metropolitan New York Association for Applied Psychology
2007-2008	Secretary of the Metropolitan New York Association for Applied Psychology
2019-2023	Editorial board for <i>Personnel Assessment and Decisions</i>
2017-2020	Editorial board for <i>Industrial and Organizational Psychology</i>
2009-Present	Editorial board for the <i>Journal of Business and Psychology</i>
2012-Present	Editorial board for the <i>Journal of Applied Psychology</i>
2017-Present	Editorial board for the <i>Organizational Research Methods</i>
2018-Present	Editorial board for <i>International Journal of Selection and Assessment</i>

Professional Memberships

- Member of the International Personnel Assessment Council
- Member of the International Testing Commission
- Member of the American Psychological Association
- Member of the Society for Industrial and Organizational Psychology
- Member of the Academy of Management
- Member of the Metropolitan New York Association for Applied Psychology
- National member of Psi Chi

Media Interviews and Media Coverage

- TLNT (6/5/14): “Technology Insights: How Big Data Can Help HR Drive Recognition” <http://www.tlnt.com/2014/06/03/technology-insights-how-big-data-can-help-hr-drive-recognition/>
- BusinessWeek Online Interactive Case Study: “Maintaining Employee Engagement” <http://www.businessweek.com/stories/2009-01-16/the-issue-maintaining-employee-engagementbusinessweek-business-news-stock-market-and-financial-advice>
- The Investment Professional: “Hive Mind: Organizational Psychology and the Origins of the Financial Crisis” http://www.theinvestmentprofessional.com/vol_2_no_2/hive-mind.html. May 2010

Government and Legal Coverage of Research

- My research on the impact of stereotype threat was referenced in the Brief of the American Association for Affirmative Action as Amicus Curiae to the U.S. Supreme Court in support of the responded in Fisher v. University of Texas, Austin.
- The outcomes of the Baruch College NSF-REU program were referenced in the statements of Dr. Myron P. Gutmann, Assistant Director, Social, Behavioral, and Economic Sciences at the National Science Foundation to the Committee on Science, Space, and Technology Subcommittee on Research and Science Education, United States House of Representatives on June 2, 2011.